

Illuminating Engineering Society of North America 120 Wall Street – Floor 17 New York, NY 10005-4001 TEL: 212-248-5000 Ext. 115 FAX: 212-248-5017 Email: rharrold@iesna.org

Rita M. Harrold, FIES, LC Director, Educational and Technical Development

Memorandum

To: Gary Flamm

From: Rita M. Harrold

Date: 9/18/02

Subject: Response to NEMA issues

Hi Gary. Thank you for your email of 9/16. I have read through the NEMA comments and am responding to the four key questions you raised.

- 1. We are pleased that the Energy Commission uses the recommendations offered in various IESNA publications. It is true that there are variations among the recommendations developed by the Society's committees, but these occur for valid reasons. Each committee develops by consensus what its members consider appropriate qualitative and quantitative values for a particular application. As we have previously discussed, one example would be the differences among illuminance values suggested by the IESNA Outdoor Environmental and Retail Lighting committees. The OELC addresses lighting needs based on light trespass, community responsive design, and glare, while the Retail committee is concerned with satisfying merchandising needs. Each committee has a different focus and neither is right or wrong. The user of the standards needs to evaluate the recommendations in context with the objectives of the authoring committee, usually stated in the foreword or introduction to each recommended practice. The problem arises when a user of a standard takes the information and applies it to different needs or criteria. The Energy Commission, by sorting through the publications, has clearly approached this correctly.
- 2. The recommendation to consider lighting zones is as your know, Gary, a new one in IESNA, only approved at the March, 2002 Board meeting, so it is premature for IESNA to have zone recommendation for all of its outdoor standards. There will undoubtedly be variations in these recommendations too. For example, the Off Roadway subcommittee of the Roadway Lighting committee is already wrestling with how to apply zone values to safety rest areas along highways. It is not an easy determination and it will take time for all IESNA outdoor committees to develop recommendations. The application of zones, however, is not new to the rest of the world, and the basis for IESNA's recommendations lies in those of CIE. One advantage of creating area classifications or zones is the ability to address a larger number of luminaires than are often covered by ordinances that address only one lighting installation or luminaire on a specific property.
- 3. The recommendations in RP-20-98 are current, but you should be aware that the committee is working on a revision to the document, which I have not yet seen, but which may well contain revisions to the recommendations. If you wish, I can find out the anticipated committee completion date for the revision.

4. The whole cutoff classification issue is being worked on by a recently appointed IESNA Cutoff Criteria committee. Again the issues are not always simply answered. As the Commission has already recognized, the strict control of light distribution using full cutoff luminaires often results in close spacing and hence increases energy consumption and cost of the installation (more luminaires and poles). The concentration of light onto paved surfaces may also produce high luminance values if the paved surface has high reflectance, thus adding to sky glow. So, depending on the application, cutoff luminaires may be a better choice than full cutoff. But.....where no stray light is permitted (for example, in some LZ1 areas with intrinsically dark landscapes) full cutoff is a viable choice. It always depends on the application. As the IESNA Cutoff Criteria committee proceeds with its evaluation and testing of various luminaires, additional detailed criteria will be provided to give better guidance on the application suitability of each luminaire classification.

Hope this helps answer some of your concerns, Gary.

Sincerely,

Rita M. Harrold